UNITED NATIONS

ECONOMIC
AND
SOCIAL COUNCIL

LIMITED

ST/ECLA/Conf.25/L.2
24 August 1966

ORIGINAL: ENGLISH

SEMINAR ON SMALL-SCALE INDUSTRY IN LATIN AMERICA

Organized jointly by the Economic Commission for Latin America, the United Nations Centre for Industrial Development and Bureau of Technical Assistance Operations

Quito, Ecuador, 28 November to 5 December 1966

THE DEFINITION OF SMALL-SCALE INDUSTRY

Presented by

P.C. Alexander, Consultant, United Nations Centre for Industrial Development

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In the present paper, the question of definition of small-scale industry is discussed, not as an academic issue, but as a concrete problem arising, principally in the developing countries, in connexion with the formulation and implementation of policies and programmes for the development of this sector.

Smallness being a relative notion, no generally acceptable numerical definition can even be sought. Definitions, where adopted, vary considerably, not only from country to country, but even, sometimes, within the same country. Such variety is entirely justified, since different formulations may be needed to meet different objectives or conditions. Where a measure of uniformity and agreement may be introduced is in the very concept of small-scale industry, that is, the choice of components of the definition, and the differentiation of industry from other productive activities characterized by a "small" scale of operation. The actual values assigned to the components may vary within a relatively broad range.

In this paper, investment in fixed capital is proposed as the base of the definition, in some cases in combination with employment. Also, an attempt is made to distinguish small industry from artisan trades, handicrafts, and cottage industries. While it is hoped that the distinctions made would not give rise to theoretical controversies, it is realized that their adoption might sometimes involve amendments to legislative and administrative acts. Experience shows that, in a number of cases, efforts to promote small industry development have actually been hampered by inadequate definitions. In view of this,

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This paper has been prepared by Mr. P.C. Alexander, Senior Technical Adviser, in co-operation with the Small-scale Industry Section, Centre for Industrial Development.

the considerations expressed in this paper are presented as a frame of reference for elaborating new policies and programmes or assessing the effectiveness of existing ones.

The importance of the role of small-scale industries in industrialization programmes is gaining increasing recognition in the developing countries. Many countries have taken the initiative in studying the obstacles and handicaps which limit the growth of small industries and have introduced special programmes of assistance to existing small establishments and for the stimulation and promotion of new enterprises. In most cases government assistance, particularly in the form of fiscal incentives and concessions, is available to all industries whether small, medium or large. But small-scale industries are in need of certain additional programmes of assistance because of their structural weakness and this calls for special action by government authorities. Such action is aimed on the one hand at strengthening small-scale industries by locating them on common sites, in particular in industrial estates, promoting co-operative and complementary arrangements among them and encouraging the establishment of subcontracting relationships between them and large industries; on the other hand at providing them with assistance, servicing and training through institutions especially set up for this purpose such as small industries service institutes, industrial extension centres, financing institutions, and so on. The government's action tends essentially at assisting small industries to overcome the disadvantages of smallness and achieve higher levels of efficiency. An essential pre-requisite of such action by the government is that the industries which have the potential for development and which are in need of assistance be clearly identified and distinguished from others. Herein lies the importance in developing countries of a formal definition of small-scale industry based on precise and tangible criteria.

Before examining these criteria, it will be useful to emphasize the distinction between small-scale industry on the one side and the artisan, handicraft and cottage industry sector on the other.

In some countries which have introduced programmes for development of small-scale industries, these have been grouped along with artisan trades, handicrafts and cottage industries. The lack of distinction between these groups has often resulted in considerable difficulties in the administration of development programmes and has even limited their usefulness. A common factor for these industries is the smallness of their scale of operations; this has been the justification in some countries for including even small trades such as hairdressing, laundry, and the like in the category of small-scale industry. But problems of small-scale industries are quite different from those of small trades, artisan crafts, handicrafts, and service industries and the policies and programmes for their development have also, therefore, to be different.

An important distinction between small-scale industries on the one side and artisan trades, handicrafts and cottage industries on the other, is that the former represent technologically the "modern" sector of industries, that is industries using advanced tools and techniques of production and management, while the latter cling to traditional processes, equipment and products. In countries where small-scale industries have been grouped along with traditional industries, for example in order to determine eligibility to an assistance programme, the definitions adopted have been invariably designed to cover the smallest-sized establishments. Thus, in a Latin American country, a law for defence of artisans defines an artisan as a manual worker, master workman or independent worker who has an investment in tools, machinery or raw materials of not more than the equivalent of U.S. $1,000, employs not more than six workers and whose monthly sales do not exceed the equivalent of $750.[1/] In that country, artisan industries include small-scale industries, small trades and handicrafts, all of which receive the same benefits under the Government's assistance programmes, which are mostly in the form of fiscal concessions and incentives. The units receiving these concessions are anxious to remain within the limits of the definition so that they do not lose the benefits of Government assistance, and even new enterprises try to remain within the definition in order to take advantage of the assistance programmes. This is an example

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1/ Later regulations raised the capital limit for certain artisan groups: mechanical work, equivalent of $9,000; shoemaking, men's tailoring and hairdressing, $1,500; gold products and photography, $2,500.

of a definition having the unexpected effect of inhibiting expansion and growth of healthy small-scale enterprises, and reducing the usefulness of the Government's promotion and development programmes. There are many similar examples of difficulties created by grouping together enterprises with differing problems and characteristics. An essential step, therefore, for devising proper development programmes for different economic groups is to adopt precise definitions which will distinguish them from each other.

An artisan industry is essentially one which is centred around a craftsman with traditional skills. An artisan may sometimes hire helpers, but generally there will be no division of labour in his establishment. Artisans invariably stick to traditional occupations such as carpentry, blacksmithy, pottery, weaving and so on, and are reluctant to change their crafts or acquire new skills. Even though there is scope for technological improvements in these crafts, the possibilities for transformation into modern manufacturing processes are comparatively limited.

A cottage industry is manufacturing carried out in a household in which all members of the family may sometimes participate. It is often a secondary occupation in which agricultural workers engage in slack periods.

Handicrafts are usually described as undertakings where all productive operations are manually executed. This description is very loose since it may lead to including several types of small industry under the heading of handicrafts. A more rigorous distinction between handicrafts and small-scale industries is therefore called for and it is suggested that the term handicrafts be used to refer only to crafts which require artistic skill in production and whose products have artistic and ornamental value.

It is obvious that there will be considerable overlapping of types of activities within the group of traditional industries, that is, artisan, handicraft and cottage industries, but the traditional occupations as a group should be clearly distinguished from small-scale industries by the division of labour and the "modern" characteristics of the latter.

The distinction between small industries on the one side and medium and large industries on the other is one of size of establishment and scale of operation rather than one of structural organization and type of operation. In many cases "smallness" may be a stage of growth. Industries may start small and may grow in terms of employment, size of plant and equipment and volume and range of output. Some industries may always remain small, though

not necessarily weak, because of certain competitive advantages afforded by small-scale operation. Some may be linked with large industries by complementary relationships.

Different criteria are being used in different countries for defining the size of industrial establishments and the scale of their operations; chief among them are employment, capital investment, volume of sales and consumption of power. These criteria are used either singly or in combination with one another, with different ceilings in different countries. Before proceeding to discuss the merits of the different criteria, a brief reference will be made to distinctions which are sometimes introduced between small and large industries on the basis of certain functional or structural characteristics of the former.

An important characteristic of a small industry which distinguishes it from a large industry is that it has relatively little specialization in management. An extreme view 2/ is that a business ceases to be small when it can no longer be managed by one person. This generalization is, of course, excessive but it is true that one-man management is a feature of many small-scale industries. Other distinguishing characteristics of small-scale industries have been suggested, such as close personal contact of the manager with workers, customers and suppliers, lack of access to capital through the organized securities market, absence of a dominant position in a major product market and close integration with the local community because of local ownership, management, raw material sources or market. 3/ There are many other characteristics of small firms, but all of them are useful in describing small-scale industries and cannot serve as criteria for defining them. A definition, as already stated, should have precise and tangible criteria; otherwise it would be impracticable in operation.

2/ S. Dans Hiram "What is Small Business? A Suggested Criterion Illustrated with Data from the Wool Textile Industry." Explorations in Entrepreneural History, Vol. 7, No. 5, Harvard Research Center, Cambridge, Mass, 1955, pp. 174-179.

3/ Eugene Staley - Foreword to Small Industry Development Organization, Stanford Research Institute, California, 1959, p. VI.

In the vast majority of countries which have adopted a formal definition of small-scale industry, the main criterion is the number of workers in the establishment. The employment criterion is often used along with other criteria such as capital investment and use of power. For example in India a small-scale industry was defined until 1961 as an establishment with fixed capital investment of not more than Rs. 500,000 (about $100,000) and employment of not more than 50 workers per shift if power is used and not more than one hundred workers per shift if power is not used. Much lower limits of employment were suggested by a Working Party at the fourth session of the Committee on Industry and Trade of the Economic Commission for Asia and the Far East held in January 1952. According to this recommendation, a small-scale industry is "one which is operated mainly with hired labour usually not exceeding fifty workers in any establishment or unit not using any motive power in any operation, or twenty workers in an establishment or unit using such power" 4/. In Turkey, industries employing less than ten workers and using less than 10 H.P. of electricity are classified as small industries for statistical purposes. In the United Arab Republic, small industries are defined as those having a total capital investment of less than £E 10,000 ($23,000) or total employment of less than fifty workers.

These definitions are illustrative of the wide differences in the use of the employment criterion. For obvious reasons, the ceilings on employment vary from country to country 5/ and it is neither practical nor even necessary to aim at any uniformity in this standard. But the definitions quoted above show wide variations not merely in the employment ceilings, but also in the combination of employment with other factors as criteria for definition. In some cases, employment is considered along with fixed capital, sometimes along with total capital and sometimes as an alternative to the capital criterion. Further, the capital-employment ratios indirectly implied in these definitions also how wide variations.

4/ Economic Commission for Asia and the Far East - "Definition and Classification of Cottage and Small-scale Industries". E/CN.11/I and T/CIWP2/5 - 1952 (mimeographed).

5/ In the United States, a firm is recognized as a small business for government stores purchase programmes if it employs less than 500 workers; firms with less than 250 workers are recognized as small for purposes of financial assistance. In Japan, industries employing less than 300 workers (and in some cases with a capital ceiling of 10 million yen (about $28,000)) are recognized as small-scale industries.

It is important to consider whether employment, which is the most widely used criterion, is the best suited for defining small-scale industry in developing countries, either alone or in combination with other criteria. The employment cirterion has some obvious advantages. Industrial employment data are widely available. They are required for a variety of administrative purposes such as administration of factory acts, municipal regulations and social security rules, and it is easy to group industries on the basis of employment. A main defect of the employment criterion, however, is that a definition based solely on it may not reveal the real size and scale of operation of an establishment. There are several industries which require high capital investment but only a small number of workers, and it may not be correct to classify such industries as small-scale merely on the basis of employment. Conversely, there are several industries which require very limited capital but a large number of workers, and it may not be correct to exclude them from the category of small-scale industry. If a definition is based only on employment, it may result in including within the group of small-scale industry very large firms with heavy capital investment and low employment, together with small establishments with small capital investment and relatively high employment. This would certainly defeat the very purpose of the definition.

One solution to this problem, adopted in several countries, is to apply a definition based on both employment and capital. However, even this has some disadvantages. The experience in India - which had a working definition based on both criteria - showed that in certain circumstances this resulted in limiting the scope for additional employment. In some cases, small-scale industries receiving the benefits of government assistance programmes such as technical guidance and liberalized credit were reluctant to employ workers over the limits prescribed in the definition, even though they required the services of additional labour, because they did not want to lose these benefits by exceeding the definition's limits. These were small industries which could increase their production by employing more workers without increasing their capital investment, but had not become strong enough to dispense with the benefits of the assistance schemes. In India, as in most other developing countries where unemployment is a serious problem, raising employment is one

of the important objectives of the small industry development programmes, and the Government is keen in encouraging industrial establishments to maximize employment consistent with the requirements of productive efficiency. Thus, when the Government decided to remove the ceiling on employment from the definition, it did so in order to provide an incentive to small industries to employ more workers without losing the advantages of the assistance programmes. The present definition of small-scale industry in India is based only on capital investment (ceiling is Rs. 500,000) without any limit on employment, and the Government's expectation is that this will encourage small industries to employ more people without increasing capital investment proportionately. Obviously, this argument will be particularly relevant in countries where unemployment is very acute. However, even in countries where unemployment is less serious, and where there are special reasons, such as administrative convenience, for adopting the employment criterion, it may be necessary, for the reasons already explained, to use the employment criterion in combination with capital investment and not as an alternative to it.

The next question for consideration is whether capital investment as a criterion for the definition of small-scale industry should be total capital, that is, fixed assets and working capital, or fixed assets only, namely, land, building, machinery and equipment. The main argument for excluding working capital is that a proper assessment of the size and scale of operation of a firm will not be possible if factors such as cost of raw materials, direct labour, manufacturing and administrative overheads, are taken into account. There are several industries which require only small fixed capital investment, but very high working capital; if working capital is included along with fixed capital, they may fall outside the definition of small industry even though they may be typical small industries. Again, the costs of the elements constituting working capital may vary considerably from firm to firm, depending upon the structure and efficiency of management, turnover arrangements and other factors. On the other hand, fixed capital admits of more tangible and definite assessment with comparatively less scope for variation.

Another question for consideration in this connexion is whether for purposes of definition the cost of land should be included in estimating fixed capital costs. The cost of land is largely dependent on its location and

there are wide variations between one location and another even within the same region. A striking difference is between the cost of land in big cities and in rural areas. In order to ensure more meaningful comparisons, it may be advantageous to omit the cost of land altogether from the estimate of fixed capital, and limit fixed capital only to cost of buildings and machinery.

In adopting a definition based on both fixed capital and employment, it is important that the implicit ratio between the two should be a rational one. The definition should, at least roughly, reflect the capital-employment ratio relevent to the conditions prevalent in the country. While no ratio of uniform applicability can be suggested, a ceiling of fifty workers for a (fixed) capital ceiling of $100,000 would seem to be appropriate in many cases.

It is not possible to suggest any ceiling for capital investment which would have uniform applicability. Such a ceiling should be decided taking into account the problems and levels of industrial development in the countries concerned and the objectives laid down by the government for the development programmes of small-scale industry. However, the capital ceiling should be sufficiently high if a quick process of modernization and mechanization in the small industry sector is to be encouraged. There is great scope for promotion of small-scale industries as suppliers of complex components and parts required by large industries and as manufacturers of a wide range of consumer goods and certain types of producer goods of high quality and standard. To that end, small industries should be encouraged to equip themselves with modern tools and machinery. Thus, the capital ceiling adopted for the definition should be high enough to enable small-scale industries to acquire the equipment and machinery they need for functioning on efficient lines. The actual limit of capital investment in the definition is a matter for each country to decide taking into account its special needs and circumstances.

Definitions based on criteria such as value of sales, floor area of factory or quantity of power consumed - which have sometimes been proposed - are clearly irrational and unscientific even in combination with other factors. These criteria vary so much with the type and nature of manufacturing activities that they cannot faithfully reflect the size or scale of an industry.

Whatever may be the criteria adopted for defining small-scale industry, whether employment or fixed capital or both, it is very important that there should be adequate flexibility in the practical application of the definition.

As observed earlier, the importance of a definition in a developing country is that it helps to identify a group of industries with common characteristics and problems and facilitates the administration of assistance programmes. It may often be necessary to vary the criteria or the ceiling of the components within the definition for various types of assistance programmes. 6/ For example, there can be one definition for statistical and another for administrative purposes. Even for administration of development programmes there can be different criteria and ceilings. Thus, there can be one capital

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6/ In India the capital ceiling of Rs. 500,000 in the definition for small-scale industries can be relaxed up to Rs. 1,000,000 in respect of small industries working as ancillaries to large industries. The capital requirements of such small industries are much higher than those of other small industries and in order to encourage small industries to function in ancillary relationship with large industries, this higher limit has been prescribed. At present this relaxation is applied to ancillary units manufacturing components and parts for the following industries:

1. Industrial Machinery.
2. Agricultural and Earth-moving Machinery.
3. Machine Tools.
4. Industrial, Scientific and Mathematical Instruments (Mechanical).
5. Locomotives and Rolling-stock, Ships and Aircraft.
6. Bicycles.
7. Boilers and Steam-generating Plants.
8. Steam Engines, Turbine and Internal Combustion Engines.
9. Automobiles.
10. Commercial Office and Household Equipment.
11. Electrical Machinery, Equipment and Appliances.
12. Telecommunication Equipment.
13. Industrial Instruments (Electrical).
14. Radios and Electronic Equipment.
15. Air-conditioners and Cold Storage Equipment including Refrigerators.
16. Mineral Oil and Petroleum Industries (Ancillaries to only those large-scale units which are engaged in the manufacture of equipment for marketing of refined petroleum products).

See also footnote 5.

ceiling for determining admission to industrial estates and another for free technical services. There can even be different rates of interest and different terms of credit facilities for different size-groups of small industries.

A definition should also be flexible enough to admit an easy adjustment to cope with the growing requirements of industrial development. In some countries definitions have a legal basis, but even in such cases there should be adequate flexibility in making changes and amendments in the course of time. A good definition is one which is precise and clear without being rigid, and which takes into account the changing conditions and problems of industrial development in the country.